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# THE JOURNAL OF Strategic Studies

## Intelligence and the Problem of Strategic Surprise\*

Michael I. Handel

Volume 7 September 1984 Number 3

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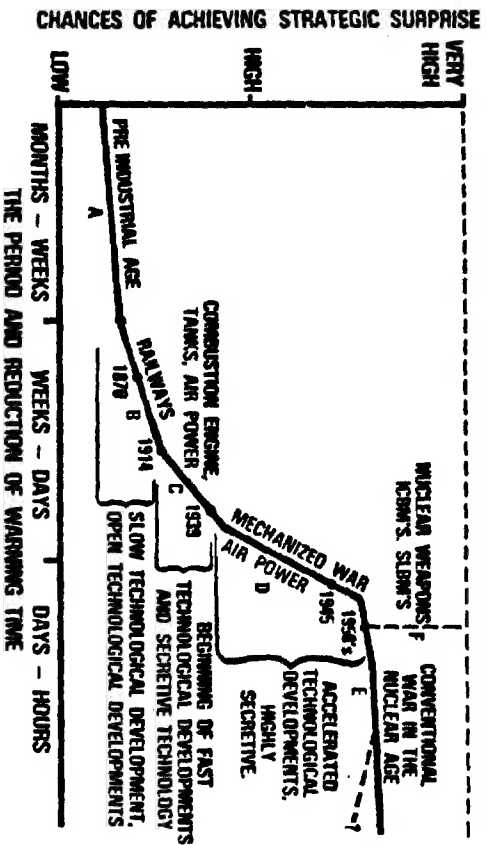
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### Strategic Surprise as a Force Multiplier

From a military point of view, the advantages to be derived from achieving strategic surprise are invaluable. A successful unanticipated attack will facilitate the destruction of a sizable portion of the enemy's forces at a lower cost to the attacker by throwing the inherently stronger defense psychologically off balance, and hence temporarily reducing his resistance. In compen-

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FIGURE 1  
STRATEGIC SURPRISE IN HISTORICAL PERSPECTIVE:  
THE DECLINE OF WARNING TIME



Notes:

- Pre-industrial age: Slow mobility, limited fire power. Chances of a successful strategic surprise very low. (1870)
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war continue in peacetime, indicating that intelligence work has become as important in peacetime as it is in war.

Although military technology has revolutionized almost every conceivable aspect of military performance, the one area in which it has, ironically enough, made little progress is that of anticipating surprise attack. The warning gap between the attacker and defender has remained as wide as in the past and still favors the offense over the defense. This will continue to be so, mainly because intelligence work, despite its access to electronic monitoring equipment, high-powered computers, and satellites, to name a few, is still based upon the human factor. As it is labor-intensive, intelligence work must reflect human nature, not technological excellence. The quality of results achieved in the world of intelligence and strategic warning in particular depends upon finding solutions to human problems which sometimes defy technological (or for that matter, any other) solutions. Among these are problems of: human psychology and politics; wishful thinking; ethnocentric biases; perception and misperception of reality; conflicting interests; political competition over scarce resources; organizational biases. As long as men interact with machines in the decision-making process, the quality of the decisions made will be most heavily influenced by the human factor, the complexities of which can be explained but not done away with. In the past, it has often (either explicitly or implicitly) been assumed that intelligence work can be pursued by professional, detached experts working within an objective environment, and that they will be able to present the truth, as best they can determine it, to the policymakers. The policymakers in this scenario will of course recognize the quality and relevance of the data provided them, and will use this information in the best interest of their country (as they identify it). This 'purely rational decision-making model' is and belief in the viability of a 'strictly professional intelligence process' is nothing but an idealized normative fiction. And yet many scholars and even some experienced intelligence experts continue to believe in the possibility of creating - through the 'right' reform - the perfect intelligence community. Like Clausewitz's war in practice, the real world of intelligence is rife with political friction and contradictions, an environment in which uncertainty is the only certain thing.

\* \* \*

Intelligence work can be divided into three distinct levels: *acquisition* (the collection of information); *analysis* (its evaluation); and *acceptance* (the readiness of politicians to make use of intelligence in the formulation of their policies).<sup>7</sup> As suggested earlier, past failures in avoiding surprise cannot be blamed on a dearth of information and warning signals. Consequently, one must look to the levels of analysis and acceptance for an answer.

The major problems stemming from these two levels can be discussed under three principal categories, two of which are primarily related to the analytical process. These are, first, the methodological dilemmas inherent in intelligence work and problems of perception and second, explanations

The diagram is a horizontal timeline with several key points and intervals marked:

- ACTUAL PREPARATION FOR WAR:** The starting point on the far left.
- ATTACKER'S LEAD:** The interval between the start of actual preparation and the start of the defender's actual warning.
- INITIAL WARNING:** The point where the defender's actual warning begins.
- DEFENDER'S ACTUAL WARNING TIME:** The interval from the start of the defender's actual warning to the outbreak of war.
- DEFENDER'S NECESSARY TIME FOR MAXIMUM PREPARATION:** The interval from the start of the defender's actual warning to the point where the defender's necessary time for full mobilization begins.
- OUTBREAK OF WAR:** The point where the outbreak of war occurs.
- DEFENDER'S NECESSARY TIME FOR FULL MOBILIZATION:** The interval from the outbreak of war to the point where the defender's necessary time for full mobilization ends.
- PREPARATIONS FOR WAR:** The interval from the outbreak of war to the point where the attacker's preparations for war end.
- COMPLETE PREPARATIONS:** The point where the attacker's preparations for war end.
- PREPARATIONS FOR WAR HALF WAY:** The point where the attacker's preparations for war are halfway complete.
- ATTACKER'S PREPARATION:** The interval from the outbreak of war to the point where the attacker's preparation ends.
- ATTACKER'S LEAD:** The interval between the start of the attacker's preparation and the outbreak of war.
- READINESS GAP F:** The interval between the end of the attacker's preparation and the outbreak of war.
- SURPRISE:** The interval between the end of the attacker's preparation and the outbreak of war.
- DEGREE OF DEFENDER'S MOBILIZATION:** The interval from the outbreak of war to the point where the defender's necessary time for full mobilization ends.
- VICTIMS:** The interval from the outbreak of war to the point where the defender's necessary time for full mobilization ends.
- DEFENSE:** The interval from the outbreak of war to the point where the defender's necessary time for full mobilization ends.

- Notes:
- A. Attacker starts preparations for war.
  - B. Defender issues initial warning, but is uncertain of the real probability of war.
  - C. Due to uncertainty the initial phase of preparation proceeds relatively slowly.
  - D. As the probability of war increases and becomes more certain the defender accelerates preparations.
  - E. War breaks out (e.g. surprise attack). Defender's preparations incomplete and lag behind the attacker.
  - F. The readiness gap favoring the attacker.
  - G. The degree of mobilization completed by the defenders at the time of attack (E).
  - H. At this point the defender may have reached his highest level of preparations. Line A  $\rightarrow$  B represents the *attacker's lead time*; line B  $\rightarrow$  E represents the *defender's actual warning time*; line E  $\rightarrow$  H represents the time the defender needs to complete his preparations. The greater is B  $\rightarrow$  H minus B  $\rightarrow$  E, the more intense is the impact of the surprise attack.

attack (point E). Represented by gap F, the time lag between the preparations of the two adversaries depends upon the warning received by the defender and his speed of mobilization. While the defender's actual warning time was B-E, he might require more time (B-H) to complete his mobilization. (G represents the forces the defender managed to mobilize before the attack took place.) This sequence of events is typical of a strategic surprise that is not 'out of the blue'. It offers some explanation as to why surprise is not absolute, since the defender normally manages to mobilize at least some of his troops. In many instances, the defender's preparations have been underway for a matter of hours (B-E), while the time required for full mobilization (B-H) can be measured in days or even weeks. The ratio of the

Two possible exceptions to this otherwise typical sequence of events should be mentioned. In the first situation, the defender, having acquired definitive, fully credible information concerning an imminent attack, may therefore decide to launch a preemptive attack even before his own forces have been fully mobilized. He may thus seize the opportunity to begin the war on his terms by immediately using the most flexible and readily available forces at his disposal (e.g., the most suitable would normally be the air force) to attack although his own actual preparations are less than 50 per cent completed. This, for example, would have been the case in the Yom Kippur War of 1973, when the Israelis acquired incontrovertible information warning of an impending Egyptian-Syrian attack. Immediately placed on alert, the Israeli Air Force was instructed to make preparations for a preemptive strike on Arab troop concentrations. The attack was cancelled at the last moment, however, because of political considerations. Under such circumstances, the defender calculates that making the first move will allow him to cancel out, if not surpass, the attacker's advantage.

The second exception occurs in prolonged crisis situations when one side is the first to mobilize fully but then decides to delay his attack. The opponent may then catch up and perhaps reach the point where he can launch his attack first. This type of scenario occurred before the outbreak of the First World War, and again when Egypt mobilized first in May 1967 but allowed the Israelis eventually to exceed Egypt's own preparations<sup>15</sup> and launch a preemptive surprise attack of their own.<sup>16</sup>

### 3. INTENTIONS AND CAPABILITIES

All information gathered by intelligence concerns either the adversary's *intentions* or his *capabilities*.<sup>16</sup> Although this sounds simple enough, the actual sorting, evaluation, and corroboration of the information is an extremely intricate and time-consuming process which involves many interrelated steps. An error of judgment in one phase may set off a chain reaction of other mistakes, causing potentially serious analytical distortions.

Perhaps the most fundamental problem concerns the difference in the collection and analysis of the two types of information. Needless to say, it is far simpler to obtain information about capabilities than about intentions. *Capabilities* can be material or non-material. Material capabilities, that is, weapons, their performance specifications, and quantities are not easy to conceal. Non-material capabilities such as the quality of organization, morale, and military doctrine are more difficult to evaluate in a precise way, although considerable knowledge about them can be obtained. A pitfall to be avoided at all costs is concentrating on the measurable and quantifiable while neglecting the less precise, non-material ones.

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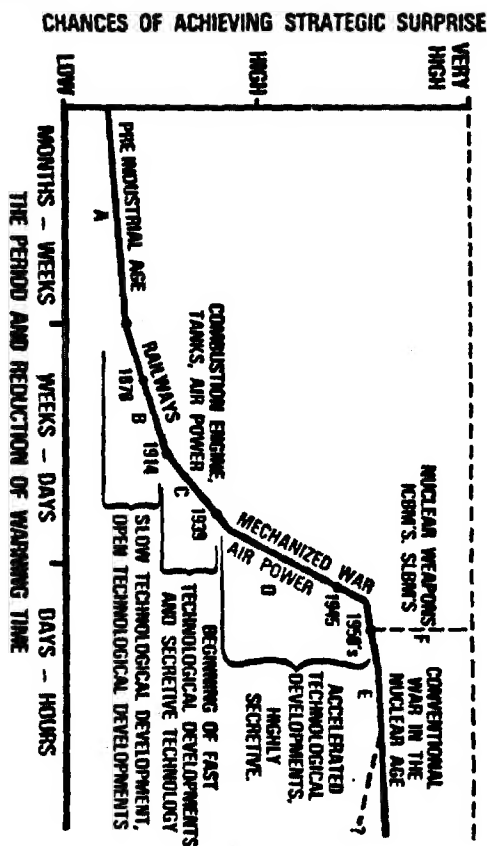
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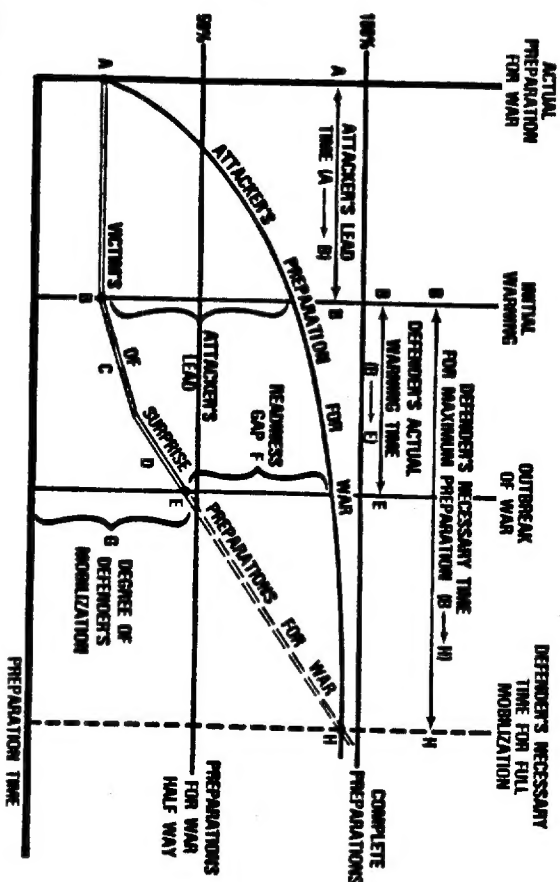
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FIGURE 2  
THE NORMAL WARNING AND PREPARATION GAP BETWEEN THE ATTACKER AND DEFENDER (THIS CHART EMPIRICALLY REFLECTS MOST CASES OF STRATEGIC SURPRISE ATTACKS)



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defender's actual mobilization (G) to the readiness gap F (or the attacker's degree of preparation for war) is a good conceptual indicator of the intensity and effectiveness of the ensuing surprise attack.

Two possible exceptions to this otherwise typical sequence of events should be mentioned. In the first situation, the defender, having acquired definitive, fully credible information concerning an imminent attack, may therefore decide to launch a preemptive attack even before his own forces have been fully mobilized. He may thus seize the opportunity to begin the war on his terms by immediately using the most flexible and readily available forces at his disposal (e.g., the most suitable would normally be the air force) to attack although his own actual preparations are less than 50 per cent completed. This, for example, would have been the case in the Yom Kippur War of 1973, when the Israelis acquired incontrovertible information warning of an impending Egyptian-Syrian attack. Immediately placed on alert, the Israeli Air Force was instructed to make preparations for a preemptive strike on Arab troop concentrations. The attack was cancelled at the last moment, however, because of political considerations. Under such circumstances, the defender calculates that making the first move will allow him to cancel out, if not surpass, the attacker's advantage.

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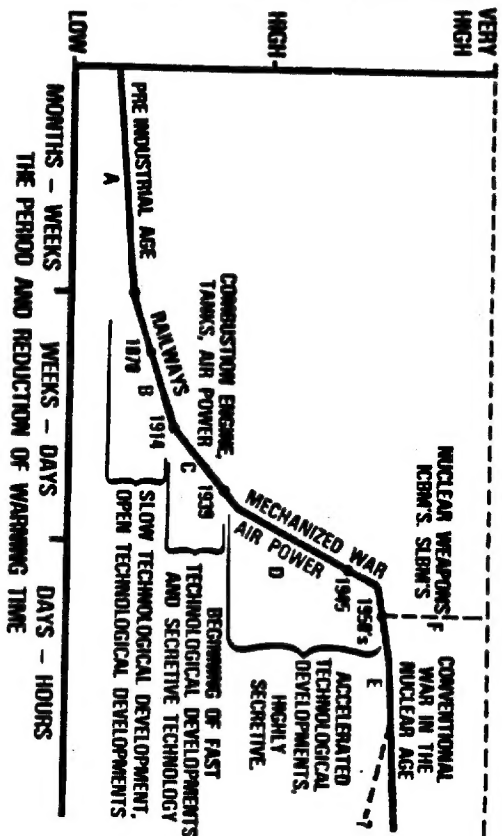
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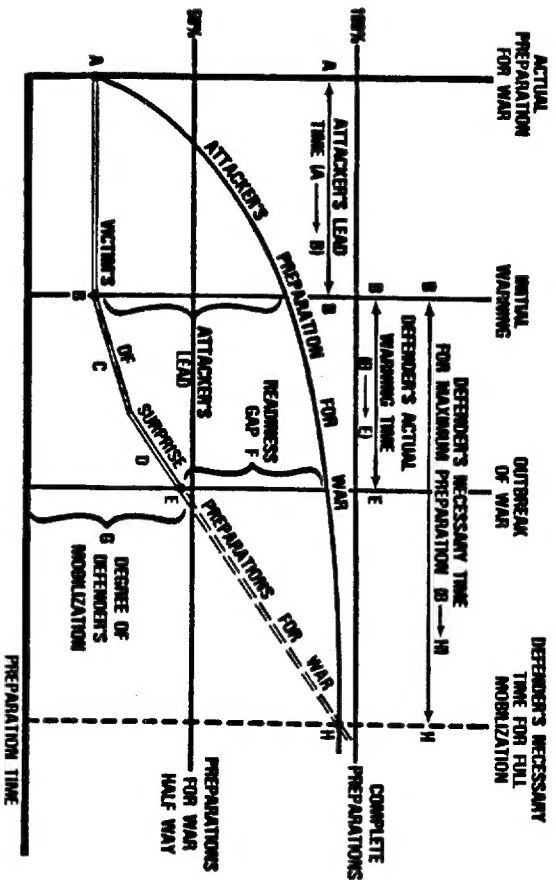
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## FIGURE 2



- A. Attacker starts preparations for war.
- B. Defender issues initial warning, but is uncertain of the real probability of war.
- C. Due to uncertainty the initial phase of preparation proceeds relatively slowly.
- D. As the probability of war increases and becomes more certain the defender accelerates preparations.
- E. War breaks out (e.g. surprise attack). Defender's preparations incomplete and lag behind the attacker.
- F. The readiness gap favoring the attacker.
- G. The degree of mobilization completed by the defenders at the time of attack (E).
- H. At this point the defender may have reached his highest level of preparations. Line  $A \rightarrow B$  represents the *attacker's lead time*; line  $B \rightarrow E$  represents the *defender's actual warning time*; line  $B \rightarrow H$  represents the time the defender needs to complete his preparations. The greater is  $B \rightarrow H$  minus  $B \rightarrow E$  the more intense is the impact of the surprise attack.

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Two possible exceptions to this otherwise typical sequence of events should be mentioned. In the first situation, the defender, having acquired definitive, fully credible information concerning an imminent attack, may therefore decide to launch a preemptive attack even before his own forces have been fully mobilized. He may thus seize the opportunity to begin the war on his terms by immediately using the most flexible and readily available forces at his disposal (e.g., the most suitable would normally be the air force) to attack although his own actual preparations are less than 50 per cent completed. This, for example, would have been the case in the Yom Kippur War of 1973, when the Israelis acquired incontrovertible information concerning an impending Egyptian-Syrian attack. Immediately placed on alert, the Israeli Air Force was instructed to make preparations for a preemptive strike on Arab troop concentrations. The attack was cancelled at the last moment, however, because of political considerations. Under such circumstances, the defender calculates that making the first move will allow him to cancel out, if not surpass, the attacker's advantage.

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Perhaps the most fundamental problem concerns the difference in the collection and analysis of the two types of information. Needless to say, it is far simpler to obtain information about capabilities than about intentions. *Capabilities* can be material or non-material. Material capabilities, that is, weapons, their performance specifications, and quantities are not easy to conceal. Non-material capabilities such as the quality of organization, morale, and military doctrine are more difficult to evaluate in a precise way, although considerable knowledge about them can be obtained. A pitfall to be avoided at all costs is concentrating on the measurable and quantifiable while neglecting the less precise, non-material ones.

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## Intelligence and the Problem of Strategic Surprise\*

Michael I. Handel

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... the general unreliability of all information presents a special problem in war: all action takes place, so to speak, in a kind of twilight which, like fog or moonlight, often tends to make things seem grotesque and larger than they really are.

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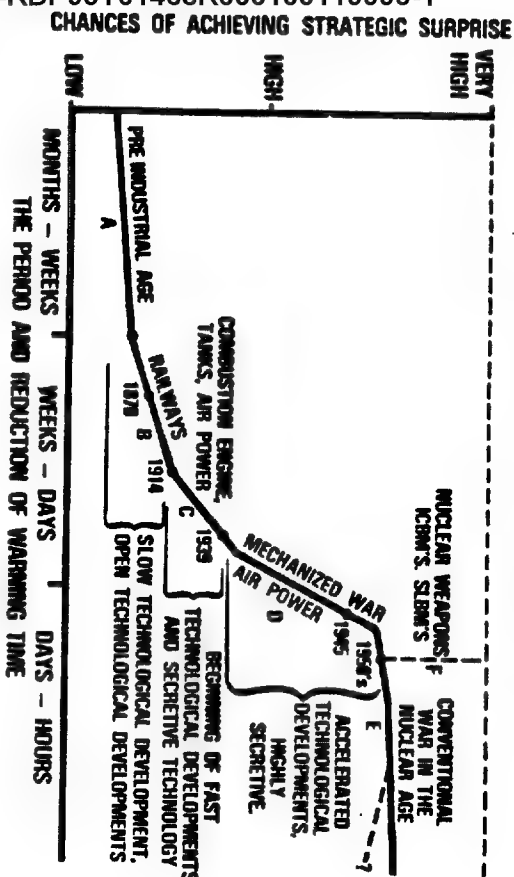
The study of strategic surprise can be rather disappointing for those who have always assumed that a better *theoretical* understanding of the subject at hand would logically lead to the discovery of more effective *practical* means to anticipate strategic surprise and alleviate its impact. Thus far in its application to the real world, improved insight into the causes and pattern of strategic surprise has made only a negligible contribution to the search for ways to warn of a sudden attack in an accurate and timely fashion. Here anything, the scrutiny of this phenomenon in recent years has chiefly served to explain why surprise is almost always unavoidable – and will continue to be so in the foreseeable future – despite all efforts to the contrary.

### Strategic Surprise as a Force Multiplier

From a military point of view, the advantages to be derived from achieving strategic surprise are invaluable. A successful unanticipated attack will facilitate the destruction of a sizable portion of the enemy's forces at a lower cost to the attacker by throwing the inherently stronger defense psychologically off balance, and hence temporarily reducing his resistance. In com-

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FIGURE 1  
STRATEGIC SURPRISE IN HISTORICAL PERSPECTIVE:  
THE DECLINE OF WARNING TIME



#### Notes:

- A. Pre-industrial age. Slow mobility, limited fire power. Chances of a successful strategic surprise very low. (1870)
- B. Railway age. Increased mobility, mobilization. Slow increases in fire power. Chances of a successful strategic surprise low but possible. (1870-1916)
- C. Combustion engines, tracked vehicles and tanks, rise of air power and fire power. Mechanized warfare blitzkrieg. Chances of strategic surprise high. (1916-1939)
- D. Further improvement in mobility and fire power. Chances of strategic surprise high – but also improvements to intelligence. (1939 to present)
- E. Development of nuclear weapons and later ICBM's and SLBM's par excellence the weapons of strategic surprise. War can be decided – theoretically and practically – in minutes. (1945 to present)
- F. Improvements in conventional mobility and fire power. Increased importance of air power. High chances of success for strategic surprise – but slowed increase given the technical developments of reconnaissance (air photography, satellites, electronic intelligence). Potential for surprise is somewhat leveled off by reconnaissance and familiarity with tactics of blitzkrieg. Yet, despite all the technological improvements that may help the defense, the basic problems of anticipating an attack are perceptual and psychological and remain without a satisfactory solution.

date information were not of paramount importance, because the behavior and strength of one's adversary did not change very frequently. The shape of each war differed only marginally from that of earlier wars. This is *not* the case in a world of rapid technological change, where each new weapon and the continuously changing rates of military industrial production may give the innovator a critical unilateral advantage almost overnight. For the first time in history, intelligence itself has become a major defensive weapon. Furthermore, most of the technological innovations and preparations for

war continue in peacetime, indicating that intelligence work has become as important in peacetime as it is in war.

Although military technology has revolutionized almost every conceivable aspect of military performance, the one area in which it has, ironically enough, made little progress is that of anticipating surprise attack. The warning gap between the attacker and defender has remained as wide as in the past and still favors the offense over the defense. This will continue to be so, mainly because intelligence work, despite its access to electronic monitoring equipment, high-powered computers, and satellites, to name a few, is still based upon the human factor. As it is labor-intensive, intelligence work must reflect human nature, not technological excellence. The quality of results achieved in the world of intelligence and strategic warning in particular depends upon finding solutions to human problems which sometimes defy technological (or for that matter, any other) solutions. Among these are problems of: human psychology and politics; wishful thinking; ethnocentric biases; perception and misperception of reality; conflicting interests; political competition over scarce resources; organizational biases. As long as men interact with machines in the decision-making process, the quality of the decisions made will be most heavily influenced by the human factor, the complexities of which can be explained but not done away with. In the past, it has often (either explicitly or implicitly) been assumed that intelligence work can be pursued by professional, detached experts working within an objective environment, and that they will be able to present the truth, as best they can determine it, to the policymakers. The policymakers in this scenario will of course recognize the quality and relevance of the data provided them, and will use this information in the best interest of their country (as they identify it). This 'purely rational decision-making model' and belief in the viability of a 'strictly professional intelligence process' is nothing but an idealized normative fiction. And yet many scholars and even some experienced intelligence experts continue to believe in the possibility of creating – through the 'right' reform – the perfect intelligence community. Like Clausewitz's war in practice, the real world of intelligence is rife with political friction and contradictions, an environment in which uncertainty is the only certain thing.

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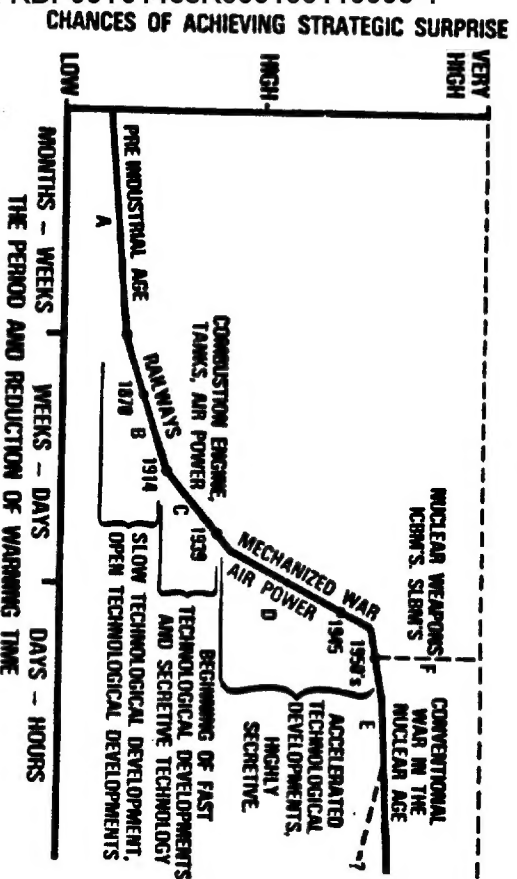
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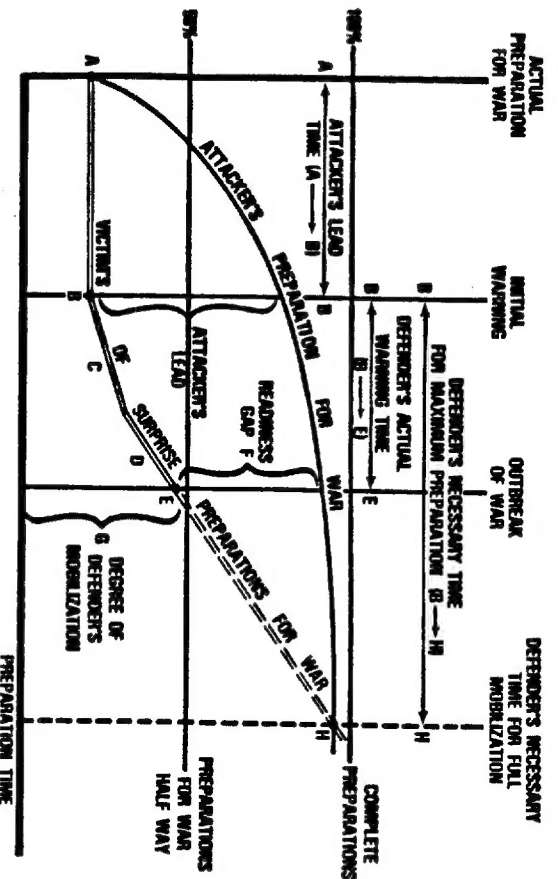
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FIGURE 2  
THE NORMAL WARNING AND PREPARATION GAP BETWEEN THE ATTACKER AND DEFENDER (THIS CHART EMPIRICALLY REFLECTS MOST CASES OF STRATEGIC SURPRISE ATTACKS)



- Notes:
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